

REMARKS

The present invention is a communication unit, a method for inputting of data to a communication unit, a method for transferring an input from a first communication unit to a second communication unit, a communication device including a user interface. A communication unit in accordance with an embodiment of the invention as illustrated in Fig. 1 includes a digital control 18 with associated random access memory 17a and read only memory 17b for control of the communication unit, including intra-changeable elements 13 which are controlled by the digital control and where the elements are used in the user interface of the communication unit and wherein the intra-changeable elements are included in an input device of the communication unit and the digital control modulates the intra-changeable elements to provide a sensory indication of options of the input device. See page 5, lines 22-28 through page 7, lines 1-31, including the bottom of page 6 regarding the intra-changeable elements providing a sensory indication of available functional options of the input.

The Examiner's allowance of claims 12-15 and the objection to claims 2-5, 9-11, 18 and 19 is noted with appreciation. Claim 14 has been amended to improve its form for issuance as a patent. Claims 2-5 have been rewritten as claims 20-23, claims 6-8 depend on claim 1, claims 9-10 have been rewritten as claims 24-25, claim 11 has been retained, claims 16 and 17 have been retained, claim 18 has been rewritten as claim 26 and claim 19 has been retained.

Claims 1-, 6-8, 16 and 17 stand rejected under 35 U.S.C. §103 as being unpatentable over United States Patent 6,032,053 (Schroeder et al) in view of

United States Patent 6,700,508 (Nomura et al). The Examiner reasons with respect to claims 1 and 16 as follows:

Regarding claims 1 and 16, Schroeder et al. teaches a communication unit (Figure 1A, unit 7) including a digital control (Figure 1B, unit 20) with associated random access (Figure 1B, unit 21) and read only memory (Figure 1B, unit 22) for control of said communication unit, which includes a user interface (Figure 1B, unit 26). However, Schroeder et al. does not teach said user interface including intra-changeable elements controlled by said processor.

Nomura et al. also teaches a user interface for use with electronic devices, wherein said user interface includes intra-changeable elements so that the operator can feel a large stroke when a key top is pressed (column 2, lines 39-46; units 3). As indicated on page 9 lines 8-12 of the specification of this application, then the term "intra-changeable elements" are elements in which their physical characteristics such as form, position, color, size etc. maybe changed as a result of a mechanical or electrical signal.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to equip the communication unit disclosed by Schroeder et al. with the user interface unit disclosed by Nomura et al. so that the operator can feel a large stroke when a key top is pressed, as evidenced by Nomura et al.

These grounds of rejection are traversed for the following reasons.

The Examiner correctly reasons that Schroeder et al do not teach a user interface including intra-changeable elements controlled by a processor. However, if the proposed combination with Nomura et al were made, the subject matter of the claims would not be achieved since Nomura et al do not teach the deficiency that "Schroeder et al does not teach the user interface including intra-changeable elements controlled by said processor".

Nomura et al disclose a keyboard unit capable of making large the stroke of a key top and a sure click touch as referred to in the Abstract. The downward pressure P, as indicated in Fig. 1, is sensed by a membrane switch 5, as illustrated in Fig. 2, which is converted by a piezoelectric control circuit 10 to generate a

piezoelectric element drive signal to cause the piezoelectric element 3 to expand as described in column 2, lines 29-46. However, there is no disclosure that the piezoelectric control circuit 10 includes the claimed digital control with associated random access and read only memories as recited in claims 1 and 16.

There is no basis in the record why a person of ordinary skill in the art would consider providing Nomura et al with a digital control with associated random access and read only memories for controlling the intra-changeable elements controlled by the digital control. In the first place, the functions performed by the piezoelectric control circuit, which are the detection of the on position of the membrane switch 5 and then generation of a piezoelectric electric drive signal, are performed without the necessity for the claimed digital control and associated memory. See column 3, lines 28-36, which include the applying of a predetermined drive voltage to the piezoelectric element 3 which a person of ordinary skill in the art would not consider obvious to use with the claimed digital control with associated random access and read only memory.

Moreover, it is noted that the Examiner alludes to the present application on page 9, lines 8-12, as defining the term "inter-changeable elements" as being "elements in which their physical characteristics such as form, position, color, size, etc. may be changed as a result of a mechanical or electrical signal". The claimed invention requires interchangeable elements controlled by the digital control which it is submitted that Nomura et al do not disclose for the reasons that a person of ordinary skill in the art would not consider a digital control with associated random access and read only memory to be applicable to Nomura's teaching since such a change would not be advantageous since it would increase power consumption and

not be conducive to providing a feel of a large key stroke in a thin keyboard which the non-digital design of Nomura et al fulfills.

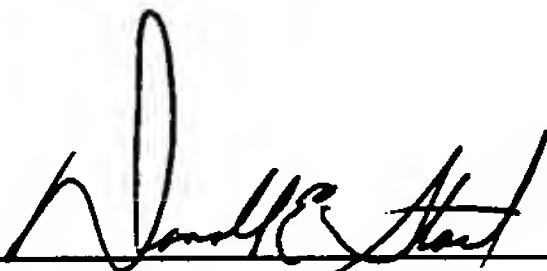
Moreover, the Examiner has not demonstrated any basis why a person of ordinary skill in the art would be motivated to combine the teachings of Nomura to arrive at the subject matter of the claims.

In view of the foregoing amendments and remarks, it is submitted that each of the claims in the application is in condition for allowance. Accordingly, early allowance thereof is respectfully requested.

To the extent necessary, applicants petition for an extension of time under 37 CFR §1.136. Please charge any shortage in the fees due in connection with the filing of this paper, to the Deposit Account of Antonelli, Terry, Stout & Kraus, LLP, Dep. Acct. No. 01-2135 (1030.40825X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

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